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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,050	07/18/2003	Michael John Davis	125436-2	6669

7590  
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02/01/2006

EXAMINER

AHMED, SHEEBA

ART UNIT PAPER NUMBER

1773

DATE MAILED: 02/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/623,050	<b>Applicant(s)</b> DAVIS ET AL.	
	<b>Examiner</b> Sheeba Ahmed	<b>Art Unit</b> 1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-73 is/are pending in the application.
- 4a) Of the above claim(s) 21-32, 34, 35, 43-48 and 50-73 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20, 33, 36-42 and 49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/26/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of Group I, claims 1-20, 33, 36-42, and 49 in the reply filed on October 17, 2005 is acknowledged. The traversal is on the grounds that the Examiner attempts to justify the restriction of dependent claims based on a property that is present and used in both the intermediate and final products being claimed, i.e., adhesive property. The Examiner disagrees. The adhesive property of the intermediate product, i.e., the curable or uncured resin composition, is not being claimed as an adhesive. Applicants further state that restriction based on the degree of cure of a thermoset composition, vis-à-vis, curable, partially cured, and fully cured as a laminate, makes little sense to Applicants. However, Applicants are reminded that typically, upon curing the intermediate loses its identity in the final product and hence restriction is proper.

This restriction requirement is hereby made FINAL.

**Claims 1-73 are pending of which 1-20, 33, 36-42, and 49 are now under consideration.**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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2. Claims 1, 2, 4, 5, 11, and 14-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The above-mentioned claims recite an average molecular weight – is this a number average molecular weight or a weight-average molecular weight? Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 6-20, 33, 36-42 and 49 are rejected under 35 U.S.C. 102(b) as being anticipated by Yeager et al. (WO 01/40354 A1).

Yeager et al. disclose a resin composition comprising (1) a poly(phenylene ether) compound in which at least a portion of the hydroxyl groups have been reacted with a compound containing ethylenic unsaturation and (2) curable unsaturated monomers. The PPE preferably has a number average molecular weight of less than 10,000 (page 6, lines 18-32). The composition further optionally contains a polymerization catalyst, a flame-retardant and a fibrous reinforcement and the composition may be used to impregnate fibrous reinforcement clad with copper to form electrical circuit boards (Page 7, lines 6-13). Preferred PPE compounds are given on Pages 8-11 and correspond to

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the recited structures in claims 12 and 13 of the instant application. Component (2) of the resin composition includes monofunctional acrylate and monofunctional styrene compounds (Page 11, lines 20-22). The resin composition may further contain unsaturated polymers such thermoplastic elastomers or thermoplastic block polymers such as styrene Page 13, lines 19-22). All limitations of claims 1-3, 6-20, 33, 36-42 and 49 are disclosed in the above reference.

### ***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheeba Ahmed whose telephone number is (571)272-1504. The examiner can normally be reached on Mondays and Thursdays from 9:30am to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571)272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read 'Sheeba Ahmed', with a large, stylized loop at the end.

Sheeba Ahmed  
Art Unit 1773  
January 30, 2006